



Dry Eye – What Do We Need In Our Arsenal?

C-105354

EYECARE



What is Dry Eye Disease?

“Dry eye is a multifactorial disease of the ocular surface characterised by a loss of homeostasis of the tear film, and accompanied by ocular symptoms, in which tear film instability and hyperosmolarity, ocular surface inflammation and damage, and neurosensory abnormalities play etiological roles.”

DEWS2 Definition 2017

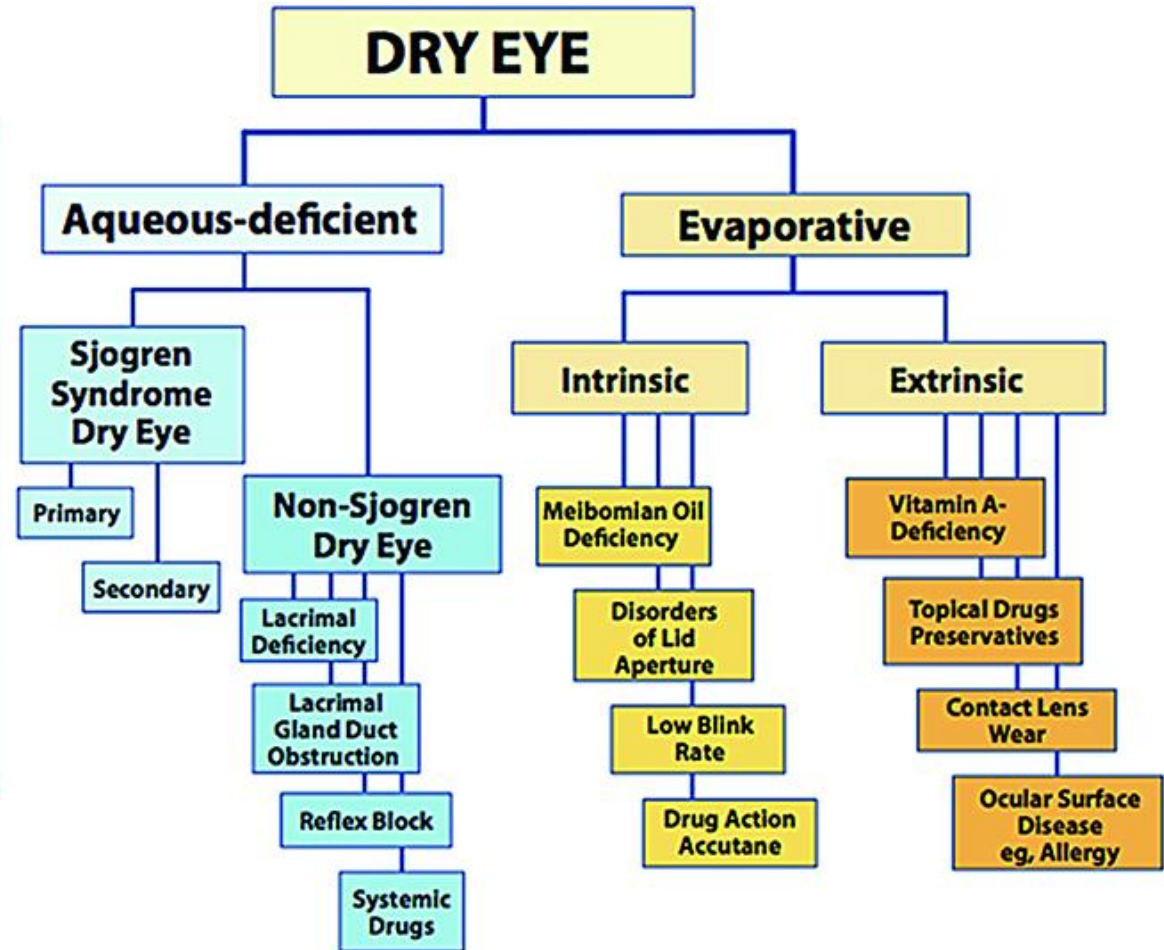


Traditionally Dry Eye Disease was split into two primary categories...

Effect of the Environment

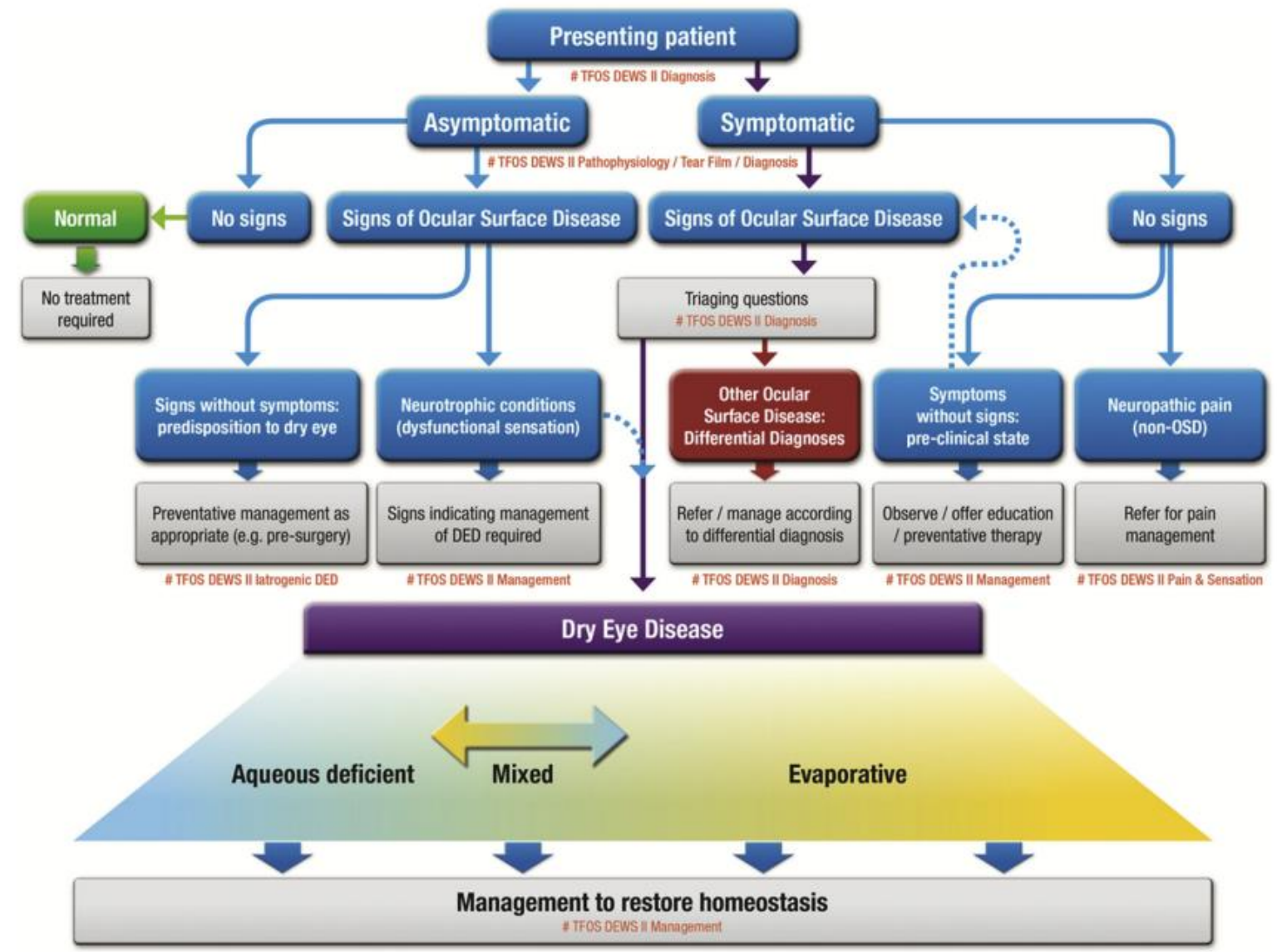
Milieu Interieur
 Low blink rate
 behavior, VTU, microscopy
 Wide lid aperture
 gaze position
 Aging
 Low androgen pool
 Systemic Drugs:
 antihistamines,
 beta-blockers,
 antispasmodics,
 diuretics, and
 some psychotropic
 drugs

Milieu Exterieur
 Low relative humidity
 High wind velocity
 Occupational
 environment



Dry eye classification from the 2007 DEWS Report

But during the DEWS 2 report in 2017 it was concluded that the two primary types can often co-exist and overlap.





Risk Factors For Dry Eye

Discussion Points:

- What are the common risk factors for dry eye?
- What are the impacts of dry eye on quality of life?

Common Risk Factors Include:

Medical conditions such as rheumatoid arthritis, Parkinson's disease, diabetes, and thyroid problems are more likely to have symptoms of Dry Eye. Also, problems with inflammation of the eyelids (e.g. blepharitis), inflammation of the surfaces of the eye, or the inward or outward turning of eyelids can cause Dry Eye to develop

Environmental conditions such as exposure to smokey, windy and dry climates. Air conditioning can also increase tear evaporation.

Prolonged screen time has been shown to reduce blink rates contributing to drying of the eyes

Contact lens wear is also a factor in the development of Dry Eye. Over half of contact lens wearers (61%) said they notice their eyes are dryer when using lenses instead of glasses

Refractive eye surgery, such as LASIK, can contribute to Dry Eye due to the disruption to the corneal nerve endings

Common Risk Factors Include:

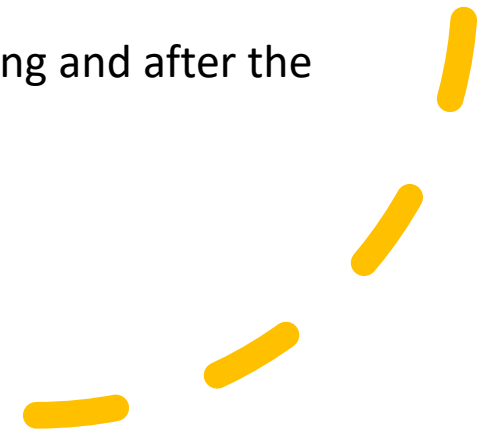
Menopause with changing oestrogen and androgen levels has a big impact on Dry Eye

Three quarters (76%) polled for a survey commissioned by Rohto did not know the significance of menopause for Dry Eye

Post-menopausal women over 50 are twice as likely to have Dry Eye as men over 50

Reduction in tear production caused by dysfunction in the lacrimal gland may occur during menopause

Meibomian gland dysfunction is common before, during and after the menopause



Impact On Quality Of Life

Dry Eye has an impact on several aspects of QOL including:

Increase in headaches

Poor mental health due to ocular pain and vision related difficulties

Anxiety, worry and depression

Sense of disappointment, frustration, and embarrassment

Decreased contrast sensitivity

Compromised visual acuity including blurry vision and inability to focus

Reduced productivity in the workplace and absenteeism particularly for screen workers and others whose job involves close work

Damage to the eye, including increased risk of eye infections; damage to the cornea



Dry Eye Products

Discussion Points:

- What products do we need in practice to effectively treat dry eye disease?
- What factors influence your recommendations for patients?

Dry Eye Drops



Key differences:

- Preservatives
- Specific formulae/Ingredients
- Application method
- Dry eye symptoms relief
- Tear film restoration
- Allergy relief
- Shelf life
- Contact lens safe?

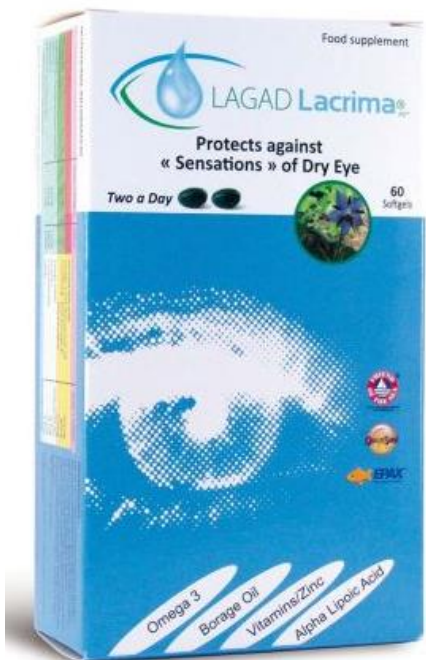


Lid Hygiene



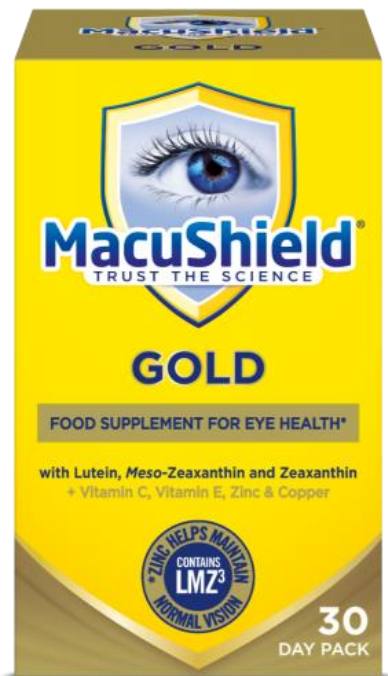
- Used for MGD or other Evaporative DED
- Variety of formulae to consider
- Inflammation
- Cleaning & anti bacterial
- Used in conjunction with heated eye mask
- Options for Demodex

Eye Health Supplements



- Dry eye supplements
- Contains Omega 3
- Omega 6,7 & 9
- Designed to supplement, not replace a healthy diet
- For px's who struggle to get the correct nutrients through diet alone

Eye Health
Supplements



- For intermediate to late AMD
- Effective in slowing progression
- Based on AREDS 2 formula with the addition of Meso-zeaxanthin
- Not a Dry Eye supplement



Case Records

Discussion Points For Each Case:

- Cause & potential diagnosis
- Management options
- Advice given to patient & product recommendation

**Patient profile:**

- 45 year old male office worker,
- VDU 9hrs/day,
- Wears soft monthly contact lenses daily for 12-16 hours since last >10years,
- Buys lenses and solution online

Symptoms:

- C/o reduction in lens tolerance and wearing time since last 6 months
- Eyes watery
- Last CL check 3 years ago, has been too busy to come in

Medical history:

High cholesterol, controlled with Simvastatin (10mg, 1 daily)

Refraction:

OD: -3.25DS VA:6/6-2 OS: -3.00DS VA:6/6 NVA: N5

Key Slit lamp findings:

mild MGD grade 2.0 EFRON scale OU

Fluorescein staining 2.2 OD, 1.8 OS EFRON

TBUT OD 7secs, OS: 8seconds

Cause and potential diagnosis of conditions

- Blepharitis, mild MGD, dry eye

Management options

- cease/reduce lens wear initially, lid hygiene: eg bleph wipes, warm compress, regular breaks from VDU, lubricating eye drops

Contact lens suitability

- After reviewing 1 month later, if symptoms under control can continue with lens wear but reduce WT and suggest switching to DDs



**Patient profile:**

- 60year old, female, rheumatoid arthritis sufferer, varifocal wearer

Symptoms:

- Intermittent blurred vision,
- Bilateral burning sensation,
- Uses lubricating drops during day and gel at night but eyes still very dry

Medication:

- Methotrexate, ibuprofen

Refraction:

- OD: -1.25 VA:6/6 OS: -0.75DS
- VA:6/6 Add: +2.25 VA: N5

Key Slit lamp findings:

- Fluorescein staining 3.0 OD, 3.0 OS EFRON
- TBUT OD 3secs, OS: 4seconds

Cause and potential diagnosis of conditions:

- Dry eye disease (aqueous deficiency with MGD)

Management options:

- Diet modification or omega 3 supplements, artificial tears with lipid component/liposomal spray, eye lid therapy warm compress/ocular massage, anti inflammatory therapy, expression of meibomian glands, punctal plugs

Contact lens suitability:

- If very severe, consider something like scleral contact lenses



**Patient profile:**

- 27 year old female, had LASIK 6 months ago

Symptoms:

- Eyes feel tired, gritty, foreign body sensation and sometimes mildly photophobic
- Uses lubricating drops during day and gel at night but eyes still very dry

Medication:

- Low dose antidepressant

Refraction:

- OD: -0.25 VA:6/6 OS: -0.00/-0.25x90DS
- VA:6/6 NVA: N5

Key Slit lamp findings:

Fluorescein staining

- TBUT OD 3 secs, OS: 4 secs



Cause and potential diagnosis of conditions

- Post LASIK dry eye disease (chronic post LASIK ocular surface pain can also be caused by corneal nerve damage therefore identify if signs of tear dysfunction are present in order to rule this out)

Management options

- Preservative free lubricating eye drops/ointments, anti inflammatory agents eg cyclosporine if tear production is suppressed by inflammation, patches if fluorescein pattern indicates incomplete blinking at night time, certain antidepressants can exacerbate dry eye symptoms

Advice given to patient

- Consider nutritional supplements like omega 3 essential fatty acids,
- Consider environment highly heated or air conditioned?

E Y E  A R E

Scan the QR Code to
download your CPD
Certificate



www.eyecare.education